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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,569	03/07/2002	Hironori Dobashi	P 290757 T4HT-01S1360-1	7976
909	7590	02/01/2005	EXAMINER KIM, CHONG R	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			ART UNIT 2623	
PAPER NUMBER				

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,569

Applicant(s)

DOBASHI, HIRONORI

Examiner

Charles Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 10 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/7/02, 5/5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 2, 6, 7, 11, 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Atick et al., U.S. Patent No. 6,111,517 (“Atick”).

Referring to claim 1, Atick discloses a face image recognition apparatus comprising:

- a. a memory in which a reference feature amount of a face of a to-be-recognized person is previously registered (col. 12, lines 1-7),
- b. input section which inputs a face image of a person (col. 12, lines 8-13),
- c. feature amount extracting section which extracts feature amount (template) of a face based on the face image input by the image input section (col. 12, lines 14-19),
- d. recognition section which determines a recognition rate (similarity) between the feature amount extracted by the feature amount extracting section and the reference feature amount registered in the memory (col. 12, lines 14-34), and
- e. feature amount adding section which additionally registers the feature amount extracted by the feature amount extracting section as a new reference feature amount into the

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memory when the recognition rate determined by the recognition section is lower than a preset value (threshold score) [col. 12, lines 14-34 and figure 9].

Referring to claim 2, Atick further discloses that the recognition section calculates similarity between the feature amount extracted by the feature amount extracting section and the reference feature amount registered in the memory and recognizes the face image input by the image input section based on the calculated similarity, and the feature amount adding section determines that the recognition rate of the recognition section is lower than a preset value when the similarity calculated by the recognition section is smaller than a preset determining reference value (col. 12, lines 14-34).

Referring to claim 6, Atick discloses a (computer access) passage control apparatus which recognizes a face image of a passer and controls the passage of the passer (col. 2, lines 13-45), comprising:

- a. a memory in which a reference feature amount of a face of a person who is permitted to pass through is previously registered (col. 12, lines 1-7),
- b. an image input section which inputs a face image of a passer (col. 12, lines 8-13),
- c. a feature amount extracting section which extracts a feature amount of a face based on the face image of the passer input by the image input section (col. 12, lines 14-19),
- d. a recognition section which determines a recognition rate between the feature amount extracted by the feature amount extracting section and the reference feature amount registered in the memory (col. 12, lines 14-34),

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e. a passage control section which controls the (computer access) passage of the passer based on the recognition rate determined by the recognition section (col. 12, lines 35-43), and

f. a feature amount adding section which additionally registers the feature amount extracted by the feature amount extracting section as a new reference feature amount into the memory when the recognition rate determined by the recognition section is lower than a preset value (col. 12, lines 14-34 and figure 9).

Referring to claim 7, see the rejection of at least claim 2 above.

Referring to claim 11, see the rejection of at least claim 1 above.

Referring to claim 12, see the rejection of at least claim 2 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 4, 8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Atick et al., U.S. Patent No. 6,111,517 ("Atick") and Cusack et al., International Publication No. WO 00/10116 ("Cusack").

Referring to claim 3, Atick further discloses a camera used to photograph a face image of a person (col. 3, line 61-col. 4, line 2) and an image input section that inputs face image

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photographed by the camera (figure 1), but does not explicitly disclose an illumination device used to apply light toward a face of a to-be-photographed person to be photographed by the camera. However, this feature was exceedingly well known in the art. For example, Cusack discloses a facial imaging system that comprises an illumination device used to apply light toward a face of a to-be-photographed person to be photographed by a camera (page 5, lines 6-27 and figure 1).

Atick and Cusack are combinable because they are both concerned with facial recognition systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the facial imaging system of Atick to include the illumination device of Cusack. The suggestion/motivation for doing so would have been to eliminate undesirable shadows during the facial imaging process, thereby providing high quality images for facial recognition (Cusack, page 3, line 28-page 4, line 5). Therefore, it would have been obvious to combine Atick with Cusack to obtain the invention as specified in claim 3.

Referring to claim 4, Cusack further discloses that the illumination device includes a first illuminating section which is disposed in an upper right position or upper left position of the camera in an oblique direction as viewed from the to-be-photographed person to apply light toward the face of the to-be-photographed person and a second illuminating section which is disposed below the camera to apply light toward the face of the to-be-photographed person (figure 4).

Referring to claim 8, see the rejection of at least claim 3 above.

Referring to claim 9, see the rejection of at least claim 4 above.

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Allowable Subject Matter

3. Claims 5, 10, 13 are allowed.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 703-306-4038. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ck

January 26, 2005


Jon Chang
Primary Examiner